

W/O: 75034

WORK ORDER CHANGES

DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D3183-044 PAR #: _____ Fault Category: Machining NCR: Yes No DQA: OK Date: 12/1/25
 Resolution: Scrap Disposition: Scrap QA: N/C Closed: OK Date: 12/1/26

NCR: 12-1139

WORK ORDER NON-CONFORMANCE (NCR) 388.12

DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
12/01/13	150	Parts came out of the big even though everything was tight. R. Rad on mat./press.	<u>OK</u> 8 12/01/19 057042	Scrap + Destroy + Re/line qty x1 M 1152806	<u>OK</u> 12/01/13.	8 12/01/19 057042	8 12/01/19 057042	8 12/01/19

NOTE: Date & initial all entries

Work Order ID 75034

October-17-11 10:27:04 AM

75034

Page 2

Item ID: D3183-044 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Bracket Assembly
 Start Date: 17/10/2011 Start Qty: 4.00 ***4*** Cust Item ID:
 Required Date: 27/10/2011 Req'd Qty: 4.00 ***4*** Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130	QC8- Inspect parts - second check	0.00							
130									
QC	Memo	0.00		B.A 12/01/19		4	0		
Quality Control									
140	Small Fab	0.00							
140									
Small Fab	Memo	0.00							
Small Fab	Assemble D3183-043 as per Dwg D3183.								
150	QC5- Inspect part completeness to step on W/O	0.00							
150									
QC	Memo	0.00		8 12/01/19		44			
Quality Control									

[Handwritten signature] 12/01/19 *[Circular stamp]*
[Circular stamp] 44

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 75034

October-17-11 10:27:04 AM

75034

Page 3

Item ID: D3183-044 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Bracket Assembly
Start Date: 17/10/2011 Start Qty: 4.00 ***4*** Cust Item ID:
Required Date: 27/10/2011 Req'd Qty: 4.00 ***4*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160	Identify as per dwg & Stock Location 2356	0.00							
160									
Packaging	Memo	0.00							
Packaging									
170	QC21- Final Inspection - Work Order Release	0.00							
170									
QC	Memo	0.00							
Quality Control									

12/11/23

R12-01-20

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

October-17-11 10:27:09 AM

Page 1

Work Order ID: 75034

75034

Parent Item: D3183-044

D3183-044

Parent Item Name: Bracket Assembly

Start Date: 17/10/2011

Required Date: 27/10/2011

Start Qty: 4.00

Required Qty: 4.00

Comments:

IPP Rev:Pick:A04.02.18New issueKJ/DS

IPP Rev:B Changed Mat Size 08-06-26 JLM Verified By:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D3183-045		Manufactured	No			100	Each	0.0000	2	8			
D3183-045													
Bearing Assembly													
D3121-21		Manufactured	No			140	Each	81.0000	2	8			
D3121-21													
Bolt													
<div> <div>Location</div> <div>Loc Qty</div> <div>Loc Code</div> </div>													
<div> <div>ST235</div> <div>81</div> <div></div> </div>													
<div> <div>66969</div> <div>1</div> <div></div> </div>													
<div> <div>74546</div> <div>80</div> <div></div> </div>													
M174B1.500X02.250		Purchased	No			140	f	22.2709	0.4583	1.929684			
M174B1 500X02.250													
17-4 SS Bar 1.50 X2.250													
<div> <div>Location</div> <div>Loc Qty</div> <div>Loc Code</div> </div>													
<div> <div>MAT031</div> <div>22.2709</div> <div></div> </div>													
<div> <div>108309</div> <div>1.08</div> <div></div> </div>													
<div> <div>113568</div> <div>11.8333</div> <div></div> </div>													
<div> <div>→ 115806</div> <div>9.3576</div> <div></div> </div>													

B77830 (80) **

EP 12/01/19

**

EP 12/01/19

B 76176 (8X)

**

1.93 ml 12/01/12

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART AEROSPACE LTD		Work Order:	75034
Description: Bracket		Part Number:	D3183-4
Inspection Dwg: D3183	Rev: C1	Page 1 of 1	

FIRST ARTICLE INSPECTION CHECKLIST

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
R0.190	+/-0.030	.188	/		Rq. 02	
R0.063	+/-0.010	.063	/			
0.182	+/-0.010	.187	/			
0.070	+/-0.010	.068	/			
0.100	+/-0.010	.109	/			
Ø0.201 x 0.100	+/-0.010	.203	/			
0.182	+/-0.010	.185	/			
5.32	+/-0.030	5.326	/			
5.036	+/-0.010	5.036	/			
2.120	+/-0.010	2.122	/			
1.290	+/-0.010	1.292	/			
0.365	+/-0.010	.365	/			
0.218	+/-0.010	.210	/			
1.030	+/-0.010	1.030	/			
1.90	+/-0.030	1.888	/			
1.012	+/-0.010	1.008	/			
Ø0.201 x 0.100	+/-0.010	.204 x .100	/			
0.786	+/-0.010	.785	/			
Ø0.392	+0.002/-0.000	.392	/			
R0.19	+/-0.030	2.19	/			
3.954	+/-0.010	3.953	/			
0.162	+/-0.010	.160	/			
R0.19	+/-0.030	.190	/			
R0.25	+/-0.030	.25	/			
4.26	+/-0.030	4.260	/			
2.800 Calculated dimension	+/-0.030	2.800	/			
0.162	+/-0.010	.162	/			
0.615	+/-0.010	.615	/			
0.435	+/-0.010	.435	/			
0.200	+/-0.010	.204	/			
0.381	+/-0.010	.381	/			
0.032	+/-0.010	.030	/		"	

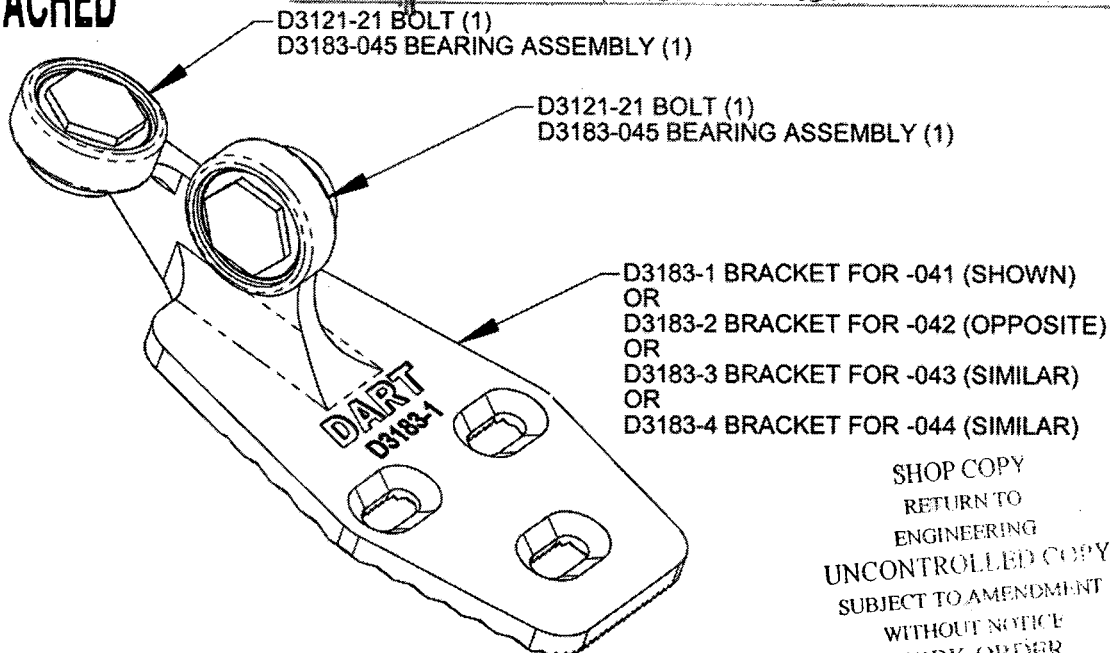
Measured by:	IR	Audited by:	h.a	Preliminary Approval:	N/A
Date:	12.1.14	Date:	12/01/19	Date:	N/A

Rev	Date	Change	Revised by	Approved
A	03.11.12	New Issue P/O D3183-044	KJ/RF	
B	04.03.15	Changes as per revision C	KJ/JLM/RF	
C	04.06.15	Dimension 2.800 was 2.080; removed 1.155, 0.36 dimensions	KJ/JLM	
D	06.03.09	Dwg Rev update	KJ/JLM	
E	08.01.16	Dimensions revised	KJ/EC/DD	
F	10.09.23	Dimensions revised	KJ	AA



DESIGN #	DRAWN BY CP	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED #	APPROVED #	DRAWING NO. D3183	REV. C SHEET 1 OF 4
DATE 04.02.17		TITLE BRACKET ASSEMBLY	SCALE 1:1
A	03.01.24	NEW ISSUE	
B	03.06.17	REMOVE BEARING; 1.012 WS 0.882	
C	04.02.17	ADD -045/-9; 0.182 WAS 0.431	
CI	# 04.11.09	0.830 WAS 0.850	

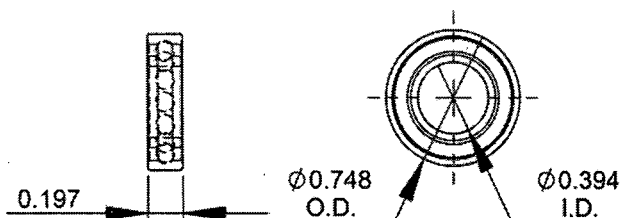
RELEASED
04.03.01
DEO ATTACHED



D3183-041 BRACKET ASSEMBLY (SHOWN)
D3183-042 BRACKET ASSEMBLY (OPPOSITE)
D3183-043 BRACKET ASSEMBLY (SIMILAR)
D3183-044 BRACKET ASSEMBLY (SIMILAR)

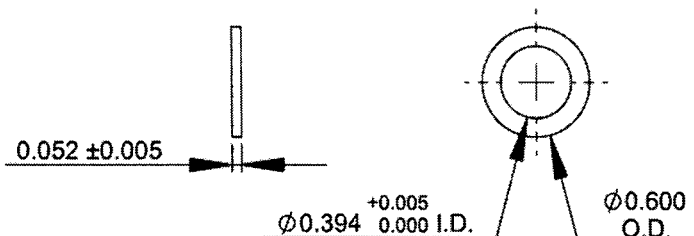
SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 75034

11-10-17



D3183-5 BEARING:
SPECIFICATION CONTROL DRAWING

- 1) SINGLE ROW, DEEP GROOVE, CONRAD TYPE, SHIELDED
- 2) POSSIBLE SUPPLIER: NSK P/N 6800ZZ
- 3) ALL DIMENSIONS ARE IN INCHES



D3183-7 WASHER

- 1) MATERIAL: AISI 303 ROUND BAR (M303R) ANNEALED
- 2) BREAK ALL SHARP EDGES 0.005 TO 0.010
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES

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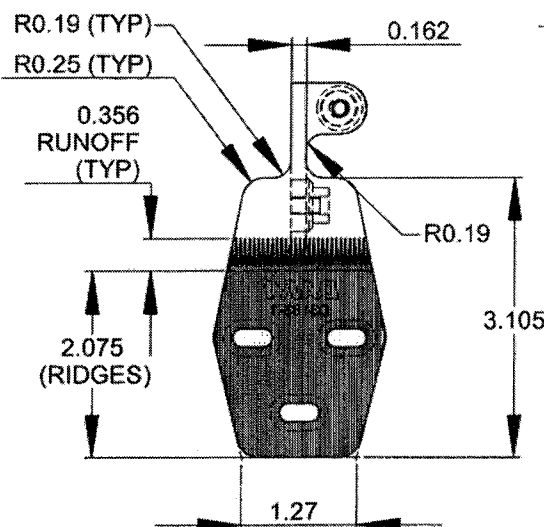
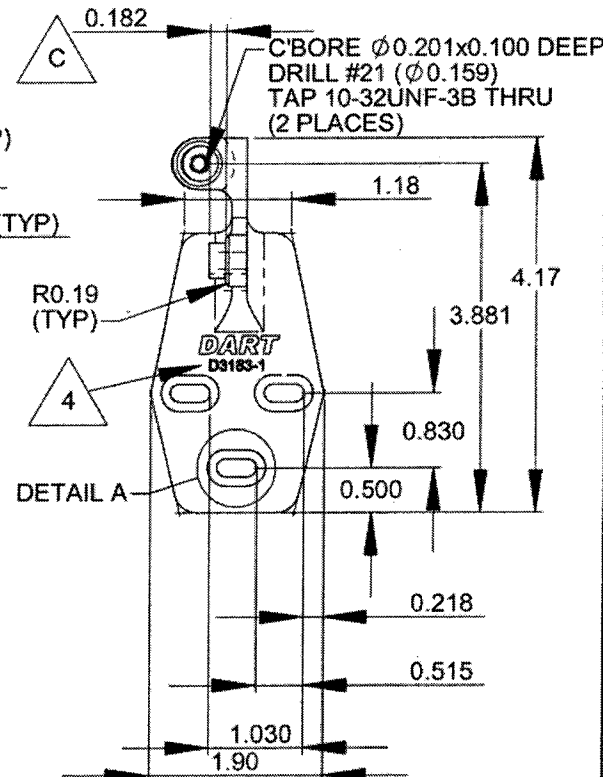
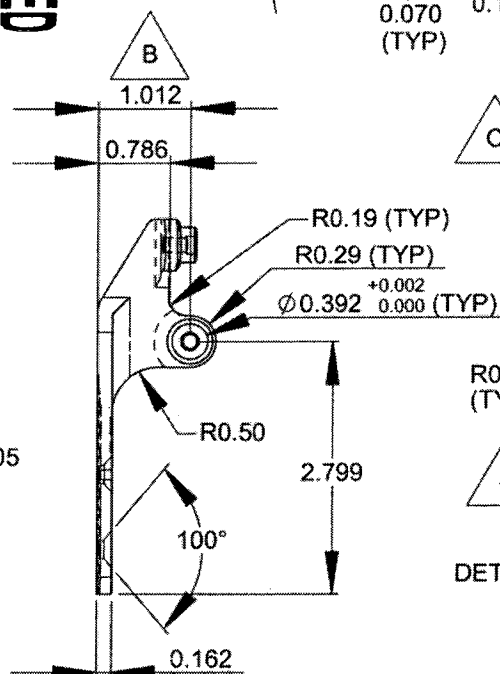
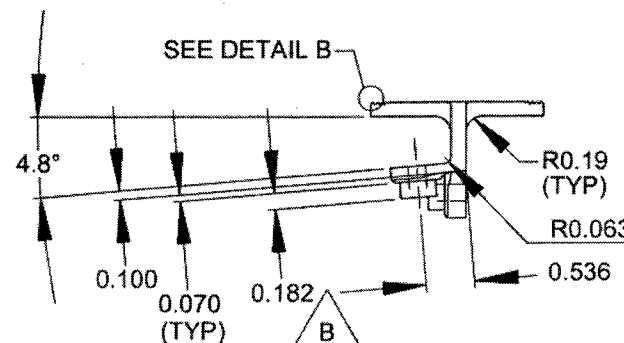
DART

QA COPY ISSUED

DESIGN	DRAWN BY	DART AEROSPACE LTD
04.03.01		HAWKESBURY, ONTARIO, CANADA
CHECKED	APPROVED	DRAWING NO.
		D3183
DATE	TITLE	REV. C
04.02.17	BRACKET ASSEMBLY	SHEET 2 OF 4
		SCALE 1:2

RELEASED

DEO ATTACHED



**D3183-1 BRACKET SHOWN
D3183-2 BRACKET OPPOSITE**

- 1) D3183-1 CAN BE MADE FROM D3183-3
D3183-2 CAN BE MADE FROM D3183-4
- 2) MATERIAL: 17-4 SS PER AMS 5604/5643
(REF DART SPEC. M17-4-B)
MIN ULTIMATE STRENGTH = 150 ksi
MIN YIELD STRENGTH = 100 ksi
- 3) BREAK ALL SHARP EDGES 0.005 TO 0.015
- 4) ENGRAVE DART P/N & LOGO AS SHOWN
- 5) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 6) ALL DIMENSIONS ARE IN INCHES

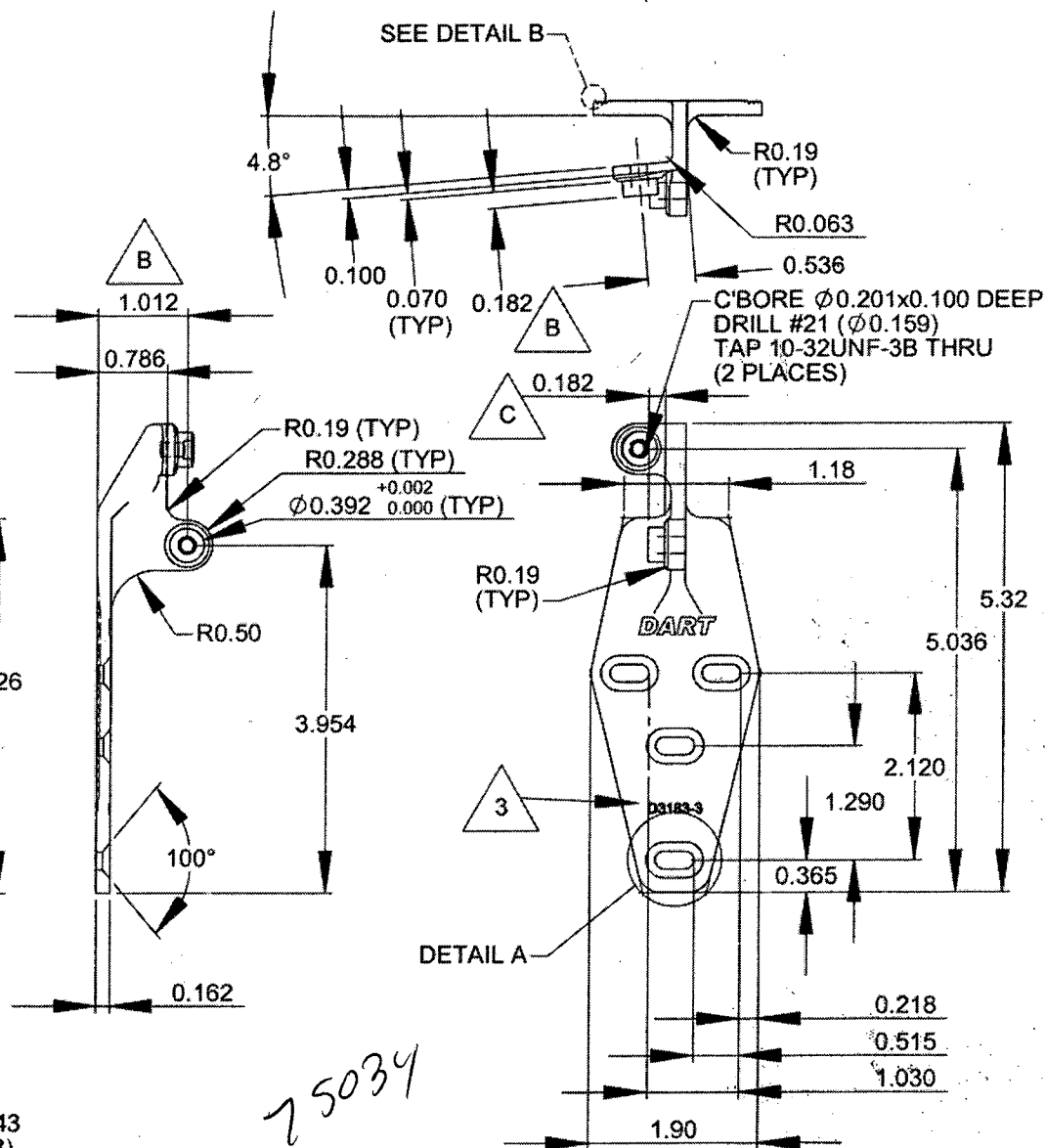
75034

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DESIGN	DRAWN BY	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED	APPROVED	DRAWING NO. D3183	REV. C
DATE 04.02.17	TITLE BRACKET ASSEMBLY	SHEET 3 OF 4	SCALE 1:2



75034

D3183-3 BRACKET SHOWN
(REPLACES BELL P/N 412-030-304-105)
D3183-4 BRACKET OPPOSITE
(REPLACES BELL P/N 412-030-304-106)

- 1) MATERIAL: 17-4 SS PER AMS 5604/5643
(REF DART SPEC. M17-4-B)
MIN ULTIMATE STRENGTH = 150 ksi
MIN YIELD STRENGTH = 100 ksi
- 2) BREAK ALL SHARP EDGES 0.005 TO 0.015
- 3) ENGRAVE DART P/N & LOGO AS SHOWN
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 5) ALL DIMENSIONS ARE IN INCHES

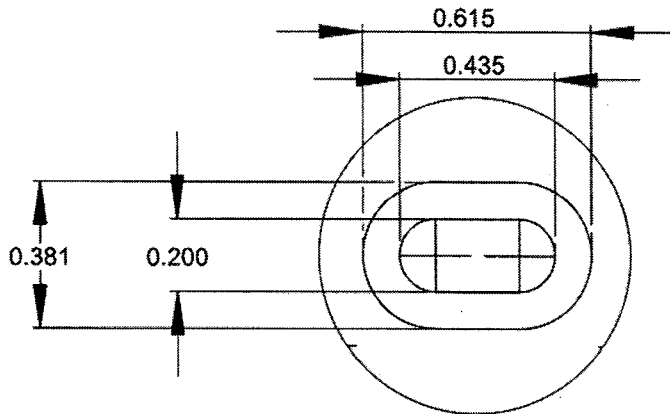
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DEO ATTACHED
RELEASED
04.02.01



DESIGN #	DRAWN BY UP	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED #	APPROVED #	DRAWING NO. D3183	REV. C SHEET 4 OF 4
DATE 04.02.17	TITLE BRACKET ASSEMBLY		SCALE 1:1

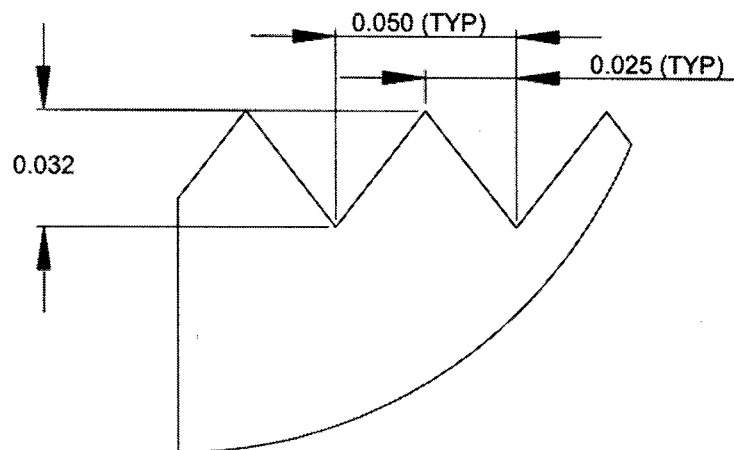


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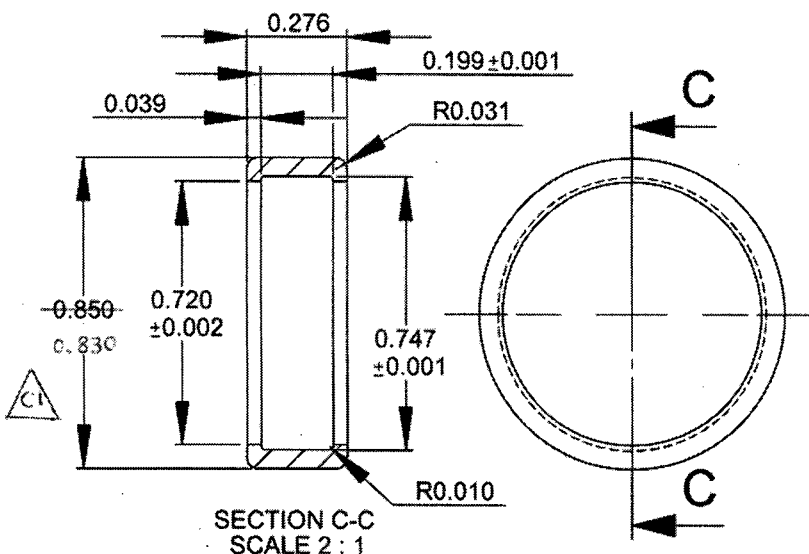
DETAIL A (2 : 1)

RELEASED
04.03.01 #

DEO ATTACHED



DETAIL B (20 : 1)



D3183-9 CAP

- 1) MATERIAL: DELRIN ROD, Ø1.00
(REF DART SPEC. M-DELRIN-R1.00)
- 2) TOLERANCES ARE PER DART QSI 018
UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES

D3183-045 BEARING ASSEMBLY

- 1) ASSEMBLE D3183-5 BEARING AND
D3183-9 CAP

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DRAWING NO. D3183	TITLE BRACKET ASSEMBLY	REV.C1	DART AEROSPACE LTD ENGINEERING ORDER		D.E.O. NO. D3183-C1-1	SHEET NO. SHEET 1 OF 1	SCALE NTS
DRAWN <i>qp</i>	CHECKED <i>[Signature]</i>	MFG. APPR. <i>[Signature]</i>	APPROVED <i>[Signature]</i>		DE APPR. <i>[Signature]</i>		
DATE 10.05.14	DATE 10.06.30	DATE 10.06.30	DATE 10/06/30		DATE 10/06/30		

D3183-5 BEARING

ADD POSSIBLE SUPPLIER: KML P/N 6800-ZZ

BASIC LOAD RATING REQUIREMENT: Cr = 1720 N (386 lb) MIN [DYNAMIC]
Cor = 840 N (188 lb) MIN [STATIC]

REF PAR 10-012

75034

RELEASED
2010-07-22
[Signature]

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